

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of claims in this application.

LISTING OF CLAIMS:

1. (Previously Presented). An image-processing apparatus comprising:

a memory that stores raster data obtained by scanning a graphic image; and

a processor connected to said memory; wherein

said processor extracts line graphics based on the raster data;

said processor generates vector data along the extracted line graphics;

said processor detects information concerning line widths of the extracted line graphics; and

said processor extracts an enclosed area surrounded by the extracted line graphics; and

said processor detects first information concerning a color within the extracted enclosed area, and detects second information concerning a color of the line graphics.

2. (Original). The image-processing apparatus according to the claim 1, further comprising:

a storage unit that stores said vector data and said information concerning the color within the enclosed area.

3. (Original). The image-processing apparatus according to the claim 2, wherein said storage unit further stores said information concerning the line widths.

4. (Original). The image-processing apparatus according to the claim 1, wherein said processor selects multiple internal points within the extracted enclosed area and detects the color within the extracted enclosed areas based on color information of the multiple internal points.

5. (Original). The image-processing apparatus according to the claim 4, wherein said processor generates a histogram of the color information of the multiple internal points and executes statistical processes based on the histogram to detect color within the extracted enclosed area.

6. (Canceled).

7. (Previously Presented). The image-processing apparatus according to the claim 2, wherein said storage unit further stores said second information concerning the color of said line graphics.

8. (Original). The image-processing apparatus according to the claim 1, wherein said vector data are generated by converting the line graphics into core line graphics.

9. (Original). The image-processing apparatus according to the claim 1, wherein said processor compares the line widths of the line graphics with a specified threshold value and generates said vector data according to comparison results.

10. (Original). The image-processing apparatus according to the claim 1, wherein said image processing apparatus is built into a scanner.

11. (Original). The image-processing apparatus according to the claim 1, wherein said image processing apparatus is built into a server that provides image-processing services.

12. (Original). The image-processing apparatus according to the claim 1, wherein said image processing apparatus is built into a printer.

13. (Previously Presented). An image-processing method comprising the steps of:

receiving raster data obtained by scanning a graphic image;
extracting line graphics based on the raster data;
generating vector data along the extracted line graphics;
detecting information concerning line widths of the extracted line graphics;
extracting an enclosed area surrounded by the extracted line graphics; and
detecting first information concerning a color within the extracted enclosed area, and detecting second information concerning a color of the line graphics.

14. (Previously Presented). An image-processing method comprising the steps of:

receiving raster data obtained by scanning a graphic image;
extracting line graphics based on the raster data;
generating vector data along the extracted line graphics;
detecting information concerning line widths and a color within the extracted line graphics;
extracting an enclosed area surrounded by the extracted line graphics;
detecting first information concerning a color within the extracted enclosed area, detecting second information concerning a color of the line graphics; and
storing said vector data, information concerning the line widths and the color of the line graphics, and information concerning the color within the enclosed area.

15. (Original). The image-processing method according to claim 14, wherein said vector data are generated by converting the line graphics into core line graphics.

16. (Original). The image-processing method according to the claim 14, further comprising the step of comparing the line widths of the line graphics with a specified threshold value;

wherein said vector data are generated according to comparison results.

17. (Previously Presented). A computer readable medium containing a program for image processing, said program for causing a computer to execute the procedures of:

receiving raster data obtained by scanning a graphic image;
extracting line graphics based on the raster data;
generating vector data along the extracted line graphics;
detecting information concerning line widths of the extracted line graphics;
extracting an enclosed area surrounded by the extracted line graphics; and
detecting first information concerning a color within the extracted enclosed area, and detecting second information concerning a color of the line graphics.

18. (Previously Presented). A computer readable medium containing a program for image processing, said program for causing a computer to execute the procedures of:

receiving raster data obtained by scanning a graphic image;
extracting line graphics based on the raster data;
generating vector data along the extracted line graphics;
detecting information concerning line widths and a color within the extracted line graphics;
extracting an enclosed area surrounded by the extracted line graphics;
detecting first information concerning a color within the extracted enclosed area, detecting second information concerning a color of line graphics; and
storing said vector data, information concerning the line widths and the color of the line graphics, and information concerning the color within the enclosed area.

19. (Currently Amended). An image processing apparatus comprising:
a processor for generating a set of data from raster image data including line
graphics that form an area surrounded by the line graphics, the set of data including
(1) vector data generated along each axis of tracing the line graphics, (2) information
on line widths of the line graphics, (3) information on a first color of the line graphics,
and (4) information on a second color of the enclosed area.

20. (Previously Presented). The image processing apparatus of claim 19,
wherein the processor selects a plurality of internal points within the area and
detects the second color based on color information of the plurality of internal points.

21. (Previously Presented). The image processing apparatus of claim 20,
wherein the processor generates a histogram of the color information of the plurality
of internal points.

22. (Previously Presented). The image processing apparatus of claim 19,
wherein the processor generates the vector data by converting the line graphics into
core line graphics.

23. (Previously Presented). The image processing apparatus of claim 19,
wherein the processor compares the line widths of the line graphics with a specified
threshold value and generates the vector data according to the comparison results.

24. (Currently Amended). An image processing method for generating a set of data from raster image data including line graphics that form an area surrounded by the line graphics, the set of data including (1) vector data generated along each axis of tracing the line graphics, (2) information on line widths of the line graphics, (3) information on a first color of the line graphics, and (4) information on a second color of the enclosed area.

25. (Previously Presented). The image processing method of claim 24, wherein the processor selects a plurality of internal points within the area and detects the second color based on color information of the plurality of internal points.

26. (Previously Presented). The image processing method of claim 25, wherein the processor generates a histogram of the color information of the plurality of internal points.

27. (Previously Presented). The image processing method of claim 24, wherein the processor generates the vector data by converting the line graphics into core line graphics.

28. (Previously Presented). The image processing method of claim 24, wherein the processor compares the line widths of the line graphics with a specified threshold value and generates the vector data according to the comparison results.

29. (Currently Amended). A computer readable medium having a computer program for image processing, the computer program causing a computer to carry out a procedure for generating a set of data from raster image data including line graphics that form an area surrounded by the line graphics, the set of data including (1) vector data generated along each axis of tracing the line graphics, (2) information on line widths of the line graphics, (3) information on a first color of the line graphics, and (4) information on a second color of the enclosed area.

30. (Previously Presented). The recordable medium of claim 29, wherein the processor selects a plurality of internal points within the area and detects the second color based on color information of the plurality of internal points.

31. (Previously Presented) The recordable medium of claim 30, wherein the processor generates a histogram of the color information of the plurality of internal points.

32. (Previously Presented). The recordable medium of claim 29, wherein the processor generates the vector data by converting the line graphics into core line graphics.

33. (Previously Presented). The recordable medium of claim 29, wherein the processor compares the line widths of the line graphics with a specified threshold value and generates the vector data according to the comparison results.